

VII. *Account of an Experiment made with a Thermometer, whose Bulb was painted black, and exposed to the direct Rays of the Sun: In a Letter from Richard Watſon, D. D. Regius Profeſſor of Divinity at Cambridge, and F. R. S. to Mathew Maty, M. D. Sec. R. S.*

Heverſham, September 18, 1772.

DEAR SIR,

Read Dec. 1,
1772. **D**URING the hot weather, which we had in the latter end of June and the beginning of July laſt, I made an experiment at Cambridge, which I then thought no more of, but which an accident hath brought to my mind again; and I now venture to ſend you an account of it, in hopes that ſome of your philoſophical friends will take the trouble of proſecuting it. I expoſed the bulb of an excellent thermometer to the direct rays of the Sun, when the ſky was perfectly free from clouds: the mercury roſe to 108° of Fahrenheit's ſcale, and continued ſtationary. A fancy ſtruck me, to give the bulb a black covering; this was eaſily effected by a camel's hair pencil and Indian ink; the
mercury

mercury sunk a few degrees during the application of the coating, and the evaporation of the water; but presently after rose to 118° , or 10° in consequence of the black coat with which I had covered that part of the bulb which was exposed to the Sun. If the bulbs of several corresponding thermometers were painted of different colours, and exposed at the same time to the Sun, for a given period, some conjectures, respecting the disposition of the several primary colours for receiving and retaining heat, might be formed, which could not fail of being, in some degree, interesting.

I am,

DEAR SIR,

Your most obedient servant,

Richard Watson.